

**REMARKS**

**Status of the claims**

Claims 1-51 were pending in the application; claims 10-13 and 38-51 were withdrawn by the Examiner from consideration. Hence, claims 1-9 and 14-37 were under active consideration. With this Response, claims 1-7, 14, 19, 21, 22, 27, 29, 30, 35 and 37 have been amended and claims 8, 9 and 38-51 have been canceled without prejudice to future prosecution of the claimed subject matter. Claim 52 is new. Thus, upon entry of this Response, claims 1-7, 14-37 and 52 will remain pending and under active consideration.

Applicants respectfully request entry of the amendments and remarks made herein into the prosecution history of the present invention. Reconsideration and withdrawal of the rejections set forth in the above-identified Office Action is respectfully requested.

**Claim amendments**

Support for the phrase “7 or more” in amended claim 7 may be found in paragraph 0060. Support the remaining amendments are indicated herein under “Claim rejections under 35 U.S.C. § 112, second paragraph” sections (a) – (r).

**Objections to the specification**

At item 7(a) of the outstanding Office Action, the Examiner requests that the priority information be amended to reflect that the allowed parent application no. 09/388,089 is now USP No. 6,693,186. The Application has been accordingly amended.

At item 7(b), the Examiner requests that all instances of “Figure 2” be amended to “Figures 2A and 2B,” to reflect the fact that Figure 2 has two panels, A and B. The Application has been amended accordingly.

At item 7(c), the Examiner has suggested that the whole specification be amended to capitalize all trademarks. Again, the application has been so amended.

Applicants thank the Examiner for a careful review of the specification and his comments thereon. Upon entry of the amendments submitted herewith, Applicants respectfully submit that each of the objections have been overcome.

**Claim rejections under 35 U.S.C. § 101**

Claims 7-9 stand rejected for allegedly being directed to non-statutory subject matter. The Examiner notes that the subject claims “as written, do not sufficiently distinguish over a peptide fragment as it exists naturally, . . .” With this Response, Applicants have amended claim 7 to recite an “isolated” peptide fragment, as suggested by the Examiner. Support for the term “isolated” may be found at least in paragraph 0077. Claims 8 and 9 have been canceled. Taken together, Applicants respectfully submit that the rejections have been overcome and respectfully solicit their withdrawal.

**Claim rejections under 35 U.S.C. § 112, second paragraph**

The Examiner has rejected several of the claims as outlined in items 11(a)-(r) of the Office Action as being indefinite and/or vague for the reasons alleged in the respective subsection. Each rejection is traversed, but solely for the sake of speed in prosecution, the claims have been amended, as discussed below with respect to each subsection.

(a), (r) The term “NMASP” has been deleted from each of the pending claims. The term “SDS” has been defined as “sodium dodecylsulfate” in the claims. Support for this amendment may be found at least in paragraph 0020.

(b)-(c) All references to the term “about” have been deleted from the pending claims.

(d), (e) Claim 3 has been amended to recite “serogroup” Types A-L and W. Support for this amendment may be found at least in paragraph 0005.

(f) The phrase “substantially homologous thereto,” now appearing in claim 1, has been amended to “at least 90% identical.” Support for this amendment may be found at least in paragraph 0046.

(g), (h) Claims 5 and 6 have been amended to recite “*the amino acid sequence ... of SEQ ID NO: 11*,” as suggested by the Examiner.

(i), (j) Claims 8 and 9 have been canceled, rendering the rejections of these subsections moot.

(k) Claim 4 has been re-worded to address the Examiners concern.

(l)-(q) Claims 19, 21, 27, 29, 35 and 37 have been amended to replace “lipid” with “lipids.”

Taken together, Applicants respectfully submit that the § 112, second paragraph, rejections have been overcome via the amendments noted herein or rendered moot via cancellation of the rejected claim. Hence, Applicants respectfully solicit withdrawal to same rejections.

#### **Claim rejections under 35 U.S.C. § 102**

Claims 1-4, 14, 16, 18, 19, 22, 24, 26, 27, 30, 32, 34 and 35 are rejected under 35 U.S.C. § 102(b) as being anticipated by Brodeur *et al.* (“Brodeur”) as evidence by USP No. 5,286,484 to Rodriguez, *et al.* In short, the Examiner alleges that a *Neisseria meningitidis* protein having a MW of 43 kDa in Brodeur is the same as the claimed peptide(s). Applicants respectfully traverse this rejection on the following grounds.

The claims, as amended, are directed to, in part, a polypeptide having a molecular weight of 44 kD to 55 kD as determined by SDS-PAGE. As the MW range of the claimed peptide no longer overlaps with the MW of any peptide of Brodeur, Brodeur cannot anticipate the claimed invention.

Claims 5-9 and 14-37 stand rejected under 35 U.S.C. § 102(b) as being anticipated by Ouaissi *et al.* (“Ouaissi”) as evidence by Qin, *et al.* In short, the Examiner alleges that a protein “comprising” merely three contiguous amino acids (i.e., amino acids RGD at 411-413) in Ouaissi anticipates the claimed peptide(s). Applicants respectfully traverse this rejection on the following grounds.

Claim 7, as currently amended, is directed to an isolated peptide consisting of an immunogenic fragment of 7 or more amino acids of a polypeptide of *Neisseria meningitidis* having a molecular weight of 44 kD to 55 kD as determined by SDS-PAGE. Ouaissi does not disclose a fragment of fragment of 7 or more amino acids of a polypeptide of *Neisseria meningitidis*, let alone one from a protein having a molecular weight of 44 kD to 55 kD as determined by SDS-PAGE. Thus, Ouaissi cannot anticipate the claimed invention.

In sum, because the claims, as amended, cannot be properly held to be anticipated by any of the cited references, Applicants respectfully request withdrawal of the rejections under § 102.

The Examiner is invited to contact the undersigned by telephone if it is felt that a telephone interview would advance the prosecution of the present application.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check or credit card payment form being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extension under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

Date January 12, 2007

FOLEY & LARDNER LLP  
Customer Number: 22428  
Telephone: (202) 295-4621  
Facsimile: (202) 672-5399

By S. Talapatra

Gilberto M. Villacorta, Ph.D.  
Registration No. 34,038  
Sunit Talapatra, Ph.D.  
Registration No. 54,482